APPENDIX 2C

Definitions of Key Business Ratios From Dun & Bradstreet

SOLVENCY RATIOS

Quick Ratio

$$\frac{\text{Cash + Accounts Receivable}}{\text{Current Liabilities}}$$

The Quick Ratio is computed by divided cash plus accounts receivable by total current liabilities. Current liabilities are all the liabilities that fall due within one year. This ratio reveals the protection afforded short-term creditors in cash or near-cash assets. It shows the number of dollars of liquid assets available to cover each dollar of current debt. Any time this ratio is as much as 1 to 1 (1.0) the business is said to be in a liquid condition. The larger the ratio the greater the liquidity.

Current Ratio

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Total current assets are divided by total current liabilities. Current assets include cash, accounts and notes receivable (less reserves for bad debts), advances on inventories, merchandise inventories and marketable securities. This ratio measures the degree to which current assets cover current liabilities. The higher the ratio the more assurance exists that the retirement of current liabilities can be made. The current ratio measures the margin of safety available to cover any possible shrinkage in the value of current assets. Normally a ratio of 2 to 1 (2.0) or better is considered good.

Current Liabilities to Net Worth

$$\frac{\text{Current Liabilities}}{\text{Net Worth}}$$

Current Liabilities to Net Worth is derived by dividing current liabilities by net worth. This contrasts the funds that creditors temporarily are risking with the funds permanently invested by the owners. The smaller the net worth and the larger the liabilities, the less security for the creditors. Care should be exercised when selling any firm with current liabilities exceeding two-thirds (66.6 percent) of net worth.

Current Liabilities to Inventory

$$\frac{\text{Current Liabilities}}{\text{Inventory}}$$

Dividing current liabilities by inventory yields another indication of the extent to which the business relies on funds from disposal of unsold inventories to meet its debts. This ratio combines with Net Sales to Inventory to indicate how management controls inventory. It is possible to have decreasing liquidity while maintaining consistent sales-to-inventory ratios. Large increases in sales with corresponding increases in inventory levels can cause an inappropriate rise in current liabilities if growth isn't made wisely.

Total Liabilities to Net Worth

$$\frac{\text{Total Liabilities}}{\text{Net Worth}}$$

Obtained by dividing total current plus long-term and deferred liabilities by net worth. The effect of long-term (funded) debt on a business can be determined by comparing this ratio with Current Liabilities to Net Worth. The difference will pinpoint the relative size of long-term debt, which, if sizable, can burden a firm with substantial interest charges. In general, total liabilities shouldn't exceed net worth (100 percent) since in such cases creditors have more at stake than owners.

Fixed Assets to Net Worth

$$\frac{\text{Fixed Assets}}{\text{Net Worth}}$$

Fixed assets are divided by net worth. The proportion of net worth that consists of fixed assets will very greatly from industry to industry but generally a smaller proportion is desirable. A high ratio is unfavorable because heavy investment in fixed assets indicates that either the concern has a low net working capital and is overtrading or has utilized large funded debt to supplement working capital. Also, the larger the fixed assets, the bigger then annual depreciation charge that must be deducted from the income statement. Normally, fixed assets over 75 percent of net worth indicate possible over-investment and should be examined with care.

EFFICIENCY RATIOS

Collection Period

$$\frac{\text{Accounts Receivable}}{\text{Sales}} \times 365$$

Accounts receivable are divided by sales and then multiplied by 365 days to obtain this figure. The quality of the receivables of a company can be determined by this relationship when compared with selling terms and industry norms. IN some industries where credit sales are not the normal way of doing business, the percentage of cash sales should be taken into consideration. Generally, where most sales are for credit, any collection period more than one-third over normal selling terms (40.0 for 30-day terms) is indicative of some slow-turning receivables. When comparing the collection period of one concern with that of another, allowances should be made for possible variations in selling terms.

Sales to Inventory

$$\frac{\text{Annual Net Sales}}{\text{Inventory}}$$

Obtained by dividing annual net sales by inventory. Inventory control is a primate management objective since poor controls allow inventory to become costly to store, obsolete or insufficient to meet demands. The sales-to-inventory relationship is a guide to the rapidity at which merchandise is being moved and the effect on the flow of funds into the business. This ratio varies widely between lines of business and a company's figure is only meaningful when compared with industry norms. Individual figures that are outside either the upper or lower quartiles for a given industry should be examined with care. Although low figures are usually the biggest problem, as they indicate excessively high inventories, extremely high turnovers might reflect insufficient merchandise to meet customer demand and result in lost sales.

Asset to Sales

$$\frac{\text{Total Assets}}{\text{Net Sales}}$$

Assets to sales is calculated by dividing total assets by annual net sales. This ratio ties in sales and the total investment that is used to generate those sales. While figures vary greatly from industry to industry, by comparing a company's ratio with industry norms it can be determined

whether a firm is overtrading (handling an excessive volume of sales in relation to investment) or undertrading (not generating sufficient sales to warrant the assets invested). Abnormally low percentages (above the upper quartile) can indicate overtrading which may lead to financial difficulties if not corrected. Extremely high percentages (below the lower quartile) can be the result of overly conservative or poor sales management, indicating a more aggressive sales policy may need to be followed.

Sales to Net Working Capital

$$\frac{\text{Sales}}{\text{Net Working Capital}}$$

Net Sales are divided by net working capital (net working capital is current assets minus current liabilities). This relationship indicates whether a company is overtrading or conversely carrying more liquid assets than needed for its volume. Each industry can vary substantially and it is necessary to compare a company with its peers to see if it is either overtrading on its available funds or being overly conservative. Companies with substantial sales gains often reach a level where their working capital becomes strained. Even if they maintain an adequate total investment for the volume being generated (Assets to Sales), that investment may be so centered in fixed assets or other noncurrent items that it will be difficult to continue meeting all current obligations without additional investment or reducing sales.

Accounts Payable to Sales

$$\frac{\text{Accounts Payable}}{\text{Annual Net Sales}}$$

Computed by dividing accounts payable by annual net sales. This ratio measures how the company is paying its suppliers in relation to the volume being transacted. An increasing percentage, or one larger than the industry norm, indicates the firm may be using suppliers to help finance operations. This ratio is especially important to short-term creditors since a high percentage could indicate potential problems in paying vendors.

PROFITABILITY RATIOS

Return on Sales (Profit Margin)

$$\frac{\text{Net Profit After Taxes}}{\text{Annual Net Sales}}$$

Obtained by dividing net profit after taxes by annual net sales. This reveals the profits earned per dollar of sales and therefore measures the efficiency of the operation. Return must be adequate for the firm to be able to achieve satisfactory profits for its owners. This ratio is an indicator of the firm's ability to withstand adverse conditions such as falling prices, rising costs and declining sales.

Return on Assets

$$\frac{\text{Net Profit After Taxes}}{\text{Total Assets}}$$

Net profit after taxes divided by total assets. This ratio is the key indicator of profitability for a firm. It matches operating profits with the assets available to earn a return. Companies efficiently using their assets will have a relatively high return while less well-run businesses will be relatively low.

Return on Net Worth (Return on Equity)

$$\frac{\text{Net Profit After Taxes}}{\text{Net Worth}}$$

Obtained by dividing net profit after tax by net worth. This ratio is used to analyze the ability of the firm's management to realize an adequate return on the capital invested by the owners of the firm. Tendency is to look increasingly to this ratio as a final criterion of profitability. Generally, a relationship of at least 10 percent is regarded as a desirable objective for providing dividends plus funds for future growth.

APPENDIX 2D
Summary Statistics for the C&D Industry, By NAICS Code

Table 2D-1.
Summary Statistics for the C&D Industry

NAICS	Description	Number of Establishments	Number of Employees	Annual Payroll ($1000)	Number of Construction Workers	Annual Payroll - Construction Workers ($1000)	Value of Construction Work ($1000)	Value of Construction Work Subcontracted In ($1000)	Net Value of Construction Work	Value Added ($1000)
23	Construction	656,448	5,664,853	174,184,608	4,332,737	119,676,792	845,543,552	237,691,136	612,209,024	383,845,728
233	Building, developing, and general contracting	199,289	1,342,953	42,546,112	885,939	23,135,832	381,641,600	15,724,829	198,826,896	120,322,720
2331	Land subdivision and land development	8,186	41,827	1,509,773	10,977	254,247	13,635,521	272,860	10,247,820	9,154,633
233110	Land subdivision and land development	8,186	41,827	1,509,773	10,977	254,247	13,635,521	272,860	10,247,820	9,154,633
2332	Residential housing construction	146,394	629,886	16,731,210	407,801	8,762,123	161,286,076	5,260,611	100,124,176	56,374,697
233210	Single-family housing construction	138,850	570,990	14,964,583	367,719	7,739,858	146,798,768	4,985,452	92,802,168	52,585,924
233220	Multifamily housing construction	7,544	58,896	1,766,627	40,082	1,022,265	14,487,308	275,159	7,322,008	3,788,773
2333	Nonresidential building construction	44,709	671,238	24,305,128	467,161	14,119,463	206,720,022	10,191,358	88,454,894	54,793,388
233310	Manufacturing and industrial building construction	7,280	143,066	5,128,967	107,180	3,322,347	33,514,342	2479077	17202078	10429844
233320	Commercial and institutional building construction	37,430	528,173	19,176,160	359,981	10,797,116	173,205,680	7712281	71252816	44363544
234	Heavy construction	42,557	880,400	30,291,850	710,898	22,218,582	127,841,600	28,386,274	105,639,352	68,775,976

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2341	Highway, street, bridge & tunnel construction	12,447	325,742	11,374,785	265,267	8,473,898	58,011,325	13,657,005	46,274,086	27,477,466
234110	Highway and street construction	11,270	277,979	9,527,626	227,066	7,095,139	48,472,284	12,246,944	39,102,084	22,983,910
234120	Bridge and tunnel construction	1,177	47,764	1,847,160	38,201	1,378,759	9,539,041	1,410,061	7,172,002	4,493,556
2349	Other heavy construction	30,107	554,655	18,917,062	445,630	13,744,685	69,830,272	14,729,269	59,365,265	41,298,511
234910	Water, sewer, and pipeline construction	8,042	162,566	5,522,281	134,023	4,087,007	22,204,058	5,233,440	19,126,738	12,280,098
234920	Power and communication transmission line construction	3,300	74,050	2,387,432	60,880	1,748,715	7,849,436	1,312,622	6,741,945	5,201,423
234930	Industrial nonbuilding structure construction	531	98,555	3,722,363	79,473	2,734,020	9,255,216	966,283	8,129,656	6288698
234990	All other heavy construction	18,236	219,486	7,284,989	171,254	5,174,943	30,521,562	7,216,924	25,366,926	17,528,292
235	Special trade contractors	414,602	3,441,500	101,346,648	2,735,901	2,940,440	336,060,352	193,580,032	307,742,752	194,747,056
235930	Excavation contractors	18,229	116,237	3,353,874	92,830	2,525,857	13,746,608	8,745,278	12,216,146	9,086,184
235940	Wrecking and demolition contractors	1,542	18,820	592,176	14,486	414,583	2,164,162	1,099,814	1,913,892	1,732,366

[a]An establishment is a single physical location at which business is conducted. It is not necessarily identical with a company or enterprise, which may consist of one establishment or more.
[b]Value of construction work includes all value of construction work done during 1992 for construction work performed by general contractors and special trades contractors. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves. This value is not available for SIC 655, instead estimates of annual revenue from the Census of Financial, Insurance, and Real Estate Industries is used. The measure includes 'reported revenues, which include revenues from all business activities, including amounts received for work subcontracted out to others.
[c]Employment comprises all full-time and part-time employees on the payrolls of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not. All employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.
[d]Payroll includes the gross earnings paid in the calendar year 1992 to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, bonuses, vacation allowances, sick leave pay, prior to such deductions as employees' Social Security contribution, withholding taxes, group insurance, union dues, and savings bonds.
[e]Construction workers include all workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site recordkeepers and security guards.
[f]Construction worker payroll includes gross earnings paid in the calendar year 1992 to all construction workers only.
[g]Net value of construction work is derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work done.
[h]Value added, derived for each establishment, is equal to dollar value of business done less the costs of construction work subcontracted to others and costs for materials, components, supplies, and fuels.
[i]Value of construction work subcontracted in from others includes the value of construction work during 1992 for work done by reporting establishments as subcontractors.
[j]Covers establishments in SICs 1794 (Excavation Work) and 1795 (Wrecking and Demolition Work) only.
[k]Covers establishments in SICs 6552 (Land Subdividers and Developers, Except Cemeteries) and 6553 (Cemetery Subdividers and Developers) only.
S Withheld because estimate did not meet publication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
NA These values are not included in the Census of Financial, Insurance, and Real Estate Industries and therefore are unavailable for SIC 655.